

FOLIO

THE UNIVERSITY OF ALBERTA STAFF BULLETIN

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COMPUTER OFFENCES AT THE UNIVERSITY OF ALBERTA

The following article has been received from Computing Services:

The recent trial of three persons in Edmonton for Mischief and Theft of Telecommunications Services has already been widely publicized. The case relates to incidents which took place at the Department of Computing Services on and before 20 August 1977. Several questions come to mind: What really happened? Were any programs or files damaged? And, more importantly, how good is the security?

Introduction

There are several aspects to security at Computing Services. The first and most important of these is the orderly separation of computer users' work (called 'jobs'). Mechanisms to control the job activities must be carried out by the computer itself. This is done through the use of control programs which are collectively known as the operating system (MTS).

To use the computer, every client is issued a signon identification code and a password. The signon ID is a unique four-character code obtained from Computing Services, generally regarded as public information. The password, however, is private information passed confidentially to the client by Computing Services. The password is a code of up to 12 characters. In order to use the computer, the user must supply both the signon ID and password. If the signon ID does not exist, or the password supplied does not match, the user is not permitted to signon.

If a user obtains the password of another user, he can use the signon and password to sign on and do work which will be attributed to and billed to that signon ID. A client may change his password as often as he likes. Computing Services advises clients to change passwords frequently. Careless disposal of a printout or other documents containing the password increases the risk, and clients are frequently warned of this.

Events Leading up to the Case

In spring of 1976, a student in Computing Science undertook a course project to investigate the security of the MTS system. The student devised a program which reduced the charges assessed for a computer job. This



program somehow became available to other users.

In late summer 1977 abnormal problems occurred. The only explanation was that malicious users were systematically tampering with the MTS operating system, causing system malfunctions. It soon became apparent that some users could monitor system activity. If so they could also access confidential information. Unknown users had gained access to the signon IDs and passwords of all users in the system, including Computing Services employees. At this point the entire operation appeared to be at their mercy.

Staff members established what kinds of activities these unknown users were probably engaged in, and the signon IDs used for this work. One of the signon IDs was being used on 20 August, and Campus Security was

called. Bruce Christensen, an unemployed former Science student, was found working on a DECWriter printing terminal in the Geology Department.

In addition to the terminal dialogue showing use of destructive techniques, other material was gathered, later analyzed, and correlated to the earlier problems.

Summary of Offences and Damages

—Bruce Christensen, Arnold Astels (a third year Electrical Engineering student), and Michael McLaughlin (a high school student) had frequently discussed means of circumventing MTS security;

—Christensen carried on the destruction; —a very large number of computer runs were performed. Much of the evidence was destroyed, but analysis showed many runs with total charges exceeding \$200; the total amount of computed work was probably worth many times that figure;

—the work was performed using stolen signon IDs and passwords; in most cases they attempted to "cover their tracks";

—no damage to clients' programs or files was done except that caused by MTS 'crashes' (abnormal interruptions to service).

Christensen was convicted on both charges; McLaughlin was convicted of theft; and the charges against Astels were dismissed. Sentencing will occur in January.

The Significance of the Case

Simply put, there are two main legal factors in this case. First, there has not been a trial for a computer-related offense under the section of the criminal code dealing with Theft of Telecommunications Services.

Originally, this section was intended to deal with offenses against telecommunications utilities using devices like "blue boxes."

However, a commonsense reading of the statute would appear to permit application to computer offenses. There have been convictions under this section in similar circumstances as a result of guilty pleas. Instances have occurred at Simon Fraser University, University of Toronto, and University of Waterloo.

A second important set of legal factors involves the application of the rules of evidence in a computer trial. Several rulings or actions were taken in the trial which will affect future cases of this nature in Canada.

In summary, then, the case is of considerable legal importance to the Canadian computer industry, regardless of its outcome.

How Good is MTS Security?

When discussing computer security, it is important to clarify that the Department of Computing Services is not responsible for the administrative data processing work at the University. This work is performed by the Office of Administration Systems—using a separate computer system. Only controlled access is permitted to that system, so the conditions of physical security are quite different for the University financial, student records, and personnel information systems.

MTS provides a level of security which is comparable to or better than most commercially-available timesharing systems. However, the security in most systems on the market today is generally acknowledged to be deficient for use in a public telecommunications environment.

The level of security in MTS was improved after January 1978, when a new version of MTS was implemented. We believe that it will prevent the kinds of abuses, except for misappropriation of signon ID and password, which were described during the trial.

In general, it requires some 'inside knowledge' and expert effort to 'crack' MTS security mechanisms. That is, security may be considered 'good' against malicious but unknowledgeable users. In the University environment, however, we must assume that many users have the expertise to commit security violations. Some will be motivated to commit security violations, for reasons of revenge, mischief, curiosity, or material gain. Even one such knowledgeable user can cause serious damage. By this standard, MTS security cannot be considered 'excellent', nor can Computing Services be complacent.

Computing Services Client Code of Ethics
Subsequent to a series of incidents in the fall

of 1976, Computing Services adopted a "Client Code of Ethics" which is publicized periodically through the Computing Services *Bulletin* and which every account owner must indicate that he has seen and agreed to honor. The Code of Ethics bans unethical or illegal behavior but of course cannot prevent it.

Privacy of Information

In a utility such as the one at Computing Services, users have the right to expect that their use of the facilities is kept private. In general, other users of the facilities need not know this kind of information. Computing Services is obligated to maintain the security and privacy of this information for the protection of its clients.

Advice on Security Matters

Questions pertaining to security can be directed to Olga Kolar, the Administrative and Information Services Manager. She can be contacted at 432-2261 or at 345 General Services Building.

DEPUTY MINISTERS' FORUM

The Department of Educational Administration has organized an Invitational Deputy Ministers' Forum for 11 and 12 January. Six deputy ministers from different provinces with responsibilities for education at various levels have agreed to attend and share their views and experience.

Panel discussions will be held at University Hall on Thursday, 11 January, starting at 1 p.m. Topics to be discussed relate to the deputy minister's role in policy formation, both in public school education and in the post secondary field.

On Friday, 12 January, starting at 9 a.m., the topic "Concerns and Developments in each Province" will be discussed. These sessions will be held on the seventh floor of Education Centre North. Those people interested in participating in the forum should contact D. Friesen, Department of Educational Administration, telephone 432-3690.

CAMPUS IYC ACTIVITIES

More and more people have become aware that 1979 has been proclaimed International Year of the Child by the United Nations. In Canada the major thrust of IYC is the involvement of individual organizations and institutions in special activities to mark the year and draw special attention to children. An IYC Commission has been established by the federal government, and one million dollars has been set aside to support projects and activities sponsored by the Commission.

Last spring a group of individuals expressing

an interest in children and in the International Year of the Child met to consider what contribution the University might make to IYC activities. A steering committee emerged, broadly representative of many disciplines at the University, to organize and coordinate special activities at the University during 1979.

The main steering committee is now reduced to a small coordinating group, the focus of involvement having passed to sub-committees planning specific activities: a conference, "Perspectives on the Child: the Canadian Context"; interdisciplinary seminars and workshops; an inventory of child-related activities, including research projects and courses, that exist already at the University; two series of special lectures; and the encouragement of other groups on campus to remember International Year of the Child and sponsor activities relating to it.

Conference Committee

One sub-committee, chaired by Sheila Campbell from the Department of Elementary Education, has organized a conference on the theme of "Perspectives on the Child: the Canadian Context," to be held from 22 to 25 August next year at the University. The idea of the conference will be for "people working in a University context who are interested in the study of the child . . . to share information, generate ideas for further research, and explore common concerns and resources."

The conference will focus on three main topics: "the developing child"—influences affecting the individual intellectual, emotional, and physical growth of children; "the learning child"—how a child acquires knowledge and skills; and "the relating child"—children's relationships with family, peers, teachers, institutions, and their culture. Children with special needs will be considered in each of these areas as well. The topics were intentionally general to attract papers from a wide range of perspectives. In the "relating child" category, for example, papers might be historical, sociological, legal, or philosophical, dealing with the child in the family, in the school, in the legal system, in the physical environment, or in the social or health services. A call for papers has gone out across Canada, to all universities and research institutions and to journals.

Initial funding for the conference was provided through a \$2,000 grant from the Vice-President (Academic).

The conference committee welcomes papers and assistance in particular. Those who wish further information about the conference or who would be interested in serving on its organizing committees are invited to contact Sheila Campbell in the Department of Elementary Education, or write to the

FOLIO

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Conference Office—Perspectives on the Child: the Canadian Context, 234 Corbett Hall.

Two Lecture Series on the Child

Shirley Wright, Associate Dean of the Faculty of Library Science, is chairing the sub-committee responsible for organizing special lecture series and special sessions courses for International Year of the Child. Two series will run one evening per week for ten weeks this winter; the lectures are being coordinated through the Faculty of Extension, and a nominal fee of \$10 will be charged. Most of the cost of the series will be underwritten by the University.

The first series, starting on Tuesday, 30 January, is titled "How does a Child Grow?" This series will examine children's physical, intellectual social, and psychological development, emphasizing normal, healthy growth. Lectures in the series will include "Influences on the Development of the Unborn Child," "Early Learning—Babies Know More Than We Thought They Did," "Babies—How and Why They Move as They Do," "Learning to Communicate: Verbal Skills, Play as Communication," "The Child Within the Family," "Sexuality in Childhood," "Spiritual and Aesthetic Development of the Child," "Challenging Trends in Early Schooling," and "Nutrition and Children's Development."

The second series, beginning on Thursday, 1 February, deals with "The Child with Special Needs." Lectures in this series will include "The High Risk Infant and Prenatal Complications," "Childhood Diseases—Recent Accomplishments and Contemporary Challenges," "The Child with Physical and Neurological Impairment," "The Emotionally Disturbed Child," "Mental Retardation in Children," "Hearing Impairment in Children," "Speech and Language Disorders in Children," "The Visually Impaired Child," and "The Gifted Child."

Both lecture series will be limited to forty participants. Further information about the series may be obtained from the Faculty of Extension, telephone 432-3033.

This committee is also working to identify courses on the child that are being given through Special Sessions; these courses will be focused on in the Special Sessions *Calendar*.

Interdisciplinary Studies

A sub-committee on interdisciplinary seminars on various topics dealing with children is planning a series of seminars for 1979. The first seminar will be in January, on the topic of "History of the Child"; the committee hopes to have noted psychohistorian Henry Ebel as the guest speaker. During February a two-day workshop will be held on "The Child and the Law," and a program is being developed for March.

Further information can be obtained from the sub-committee's chairman, Jay Bishop, of the Department of Educational Psychology, at 432-5478.

Inventory of Activities Related to Children

A fourth sub-committee, chaired by Margaret Ellis of the Department of Movement Education, is preparing an inventory of activities that already exist on campus relating to children. The sub-committee will be distributing a form during January requesting information about courses, research projects, and current and forthcoming programs and demonstrations involving children. The results of this survey will be compiled into an inventory of such activities, which is anticipated to be a help to people in various disciplines by making them aware of other work related to the child and other researchers with similar interests at this University.

Lectures, Seminars, Journals, and other Activities

The fifth sub-committee is urging existing groups on campus to consider sponsoring activities during 1979 that would be appropriate to International Year of the Child. Letters went out from Vice-President (Academic) Myer Horowitz, chairperson on the sub-committee, and Associate Vice-President (Academic) Jean Lauber to some eighty groups and individuals.

The response to this sub-committee's request was most encouraging. Several journals showed interest in having special issues devoted to the child, in using the IYC logo, and in an editorial focus on topics related to children. In some cases, plans for such special articles or special issues were already well under way. A Sociology lecture series beginning in January will focus on the child and the family in Canada. Three conferences were reported that were of special interest: the Alberta Foundations of Education Conference on "The Child in Contemporary Culture: Stigma and Stereotype," in Calgary on 27 and 28 April; the annual meeting of the Canadian Paediatric Society, in Edmonton in June, 1979; and a three-day continuing education program on the law relating to the

child, sponsored in Calgary during the week of 20 August by the Federation of Law Societies of Canada.

The University of Alberta Press noted that it has accepted at least two books for publication during 1979 that relate to children: *In the Children's Aid: a biography of J.J. Kelso*, by Leonard Rutman of Carleton University, and *Improvised and Homemade Equipment for Movement Education and Play Programs*, by Margaret Ellis and Brian Nielsen of the Department of Movement Education here. The Press is also working on the idea of a book on children's art in Canada, with Pat Rafferty of the Department of Elementary Education.

Responses from departments and groups throughout the University expressed interest in developing special programs to help celebrate International Year of the Child or in participating in other University projects.

Although the initial work of the IYC coordinating committee for the University has devolved upon the sub-committees responsible for particular activities, the coordinating committee wishes to discover whatever activities have been planned in various sectors of the University in honor of the International Year of the Child. It is anxious to avoid duplication of effort as well as to keep the sub-committees apprised of activities they ought to be aware of.

Anyone who is planning an activity related to International Year of the Child and who not yet replied to Dr. Horowitz or Dr. Lauber should reply to either of them or to Dianne Kieren, Chairperson of the IYC Coordinating Committee, in the Division of Family Studies in the Faculty of Home Economics, telephone 432-5770.

GENERAL FACULTIES COUNCIL

The last regular monthly meeting of the General Faculties Council took place on 20 December 1978. The following matters were among those discussed.

Nominating Committee

The Nominating Committee presented nominations for election to several committees within the purview of GFC. All those nominated, with the exception of persons nominated for service on the Review Committee for Chairman of the Department of Medical Bacteriology who were subject to a ballot, were elected to their respective committees. Loren W. Kline (Dentistry) was elected to the Review Committee for Chairman of the Department of Ophthalmology; Darle Forrest (Nursing) and Joseph Kirman (Elementary Education) were both elected as Alternate Staff Members to the Academic Appeals Committee with a term of office expiring in June 1981; Mary Hackney (Arts-3)

was elected to the Equal Opportunities Committee until March 1979; and E. Crisp (GS-Secondary Education) was elected to serve on the Radio and Television Committee until March 1979. There were two nominations for the Review Committee for Chairman of the Department of Medical Bacteriology, Lorene L. Kennedy (Botany), and John S. Colter (Biochemistry). A ballot was taken and Dr. Kennedy was elected.

Board of Governors Academic Staff Member

President Gunning informed the assembled Council that the taking of ballots for the appointment of an academic staff representative to the University's Board of Governors had been completed and that one person had been selected, subject to an Order-in-Council by the Lieutenant Governor. The appointment was made necessary by the imminent retirement from the Board of Mary Spencer.

The new academic representative will be R.J. Crawford, who graduated from this University in 1952 and who was appointed to the Chair of the Department of Chemistry in 1975, is a member of several professional societies and has served on a wide variety of University committees including the General Faculties Council Executive and the Academic Development Committee.

In giving notice of the selection of Dr. Crawford, the President praised his predecessor, Dr. Spencer, for all that she has done throughout her term as a Governor of this University.

Operating Budget 1978-79 and 1979-80

Under two separate items, the University Planning Committee *Report on the Preparation of the 1978-79 Operating Budget* and the *Operating Principles and Policies: 1979-80*, GFC paid particularly close attention to our present financial status and to several facets of the Operating Budget that are of consuming interest.

Mike Ekelund, an undergraduate student member of GFC, opened the debate on the UPC Report by commenting on Guideline 2: "Ancillary departments (Housing and Food Services, Bookstore, Printing Services, and Physical Plant Services) will be budgeted to break even." Mr. Ekelund noted that, according to the Report, the projected gross revenues for these departments are in the order of \$40,545,856 while estimated expenditures account for only \$40,451,379. According to Mr. Ekelund, the difference of \$94,477 (placed in the Report under the rubric "transfers to reserves") vitiates the objective of "breaking even" in the budgets of these departments. He further suggested that the "break even" principle is inappropriate to the operation of Housing and Food Services and that this department should be administered in such a way that

it provide services to students "at a reasonable cost."

In response to Mr. Ekelund's comments, President Gunning observed, from the Chair, that such a close correlation between estimated revenues and expenditures should not be deprecated but viewed as a notable achievement on the part of this institution's financial planners. Other large corporations, in Dr. Gunning's estimation, often fell short of the accuracy inherent in the UPC Report.

Later, in the debate concerning the *Operating Budget Principles and Policies: 1979-80*, Mr. Ekelund reiterated his concern that Housing and Food Services should be instructed to provide for the needs of students "at a reasonable cost." He observed that, according to data available to him, "room and board" comparable to that offered in the Lister Hall complex may be found in the campus vicinity at \$160 a month, whereas a single room in the University residence cost is \$252 a month. Professor Leitch, Vice-President (Finance and Administration), who presented the items on behalf of the University Planning Committee, assured Mr. Ekelund that any suggestion that Housing and Food Services is overpriced "would not bear close scrutiny." Professor Leitch further pointed out that "housing subsidies" implicit in Mr. Ekelund's comments are not provided for in the academic grants made to this institution by the provincial government. These grants, Professor Leitch averred, are made on the understanding that all students should benefit equally from them.

A second major concern of GFC, and one that generated a warm exchange between several council members present, was the proposed establishment in the *Operating Budget Principles and Policies: 1979-80* of a "Budget Adjustment Fund." The resources in this Fund, according to the proposal, would be "for allocation by the University Planning Committee to Faculties and Indirect Instructional Units on the basis of its assessment of need. . . ." "Need" was defined as "primarily a function of teaching workload, though other factors may be considered."

R.S. Smith, Dean of Business Administration and Commerce, objected to the principles underlying the establishment of a Budget Adjustment Fund and suggested that the establishment of such a fund should be considered as evidence of the University responding to crises rather than planning for the future. Professor Leitch responded that Dr. Smith's point was "well taken," but that the University could not accommodate rapid expansion in one area without shifting resources from another area. According to Professor Leitch's perception, the University Priorities Committee was struck to examine and recommend on this very problem. It

was observed, however, that should quotas in certain faculties be increased, funds would have to be made available to accommodate increased costs.

P.F. Adams, Dean of Engineering, voiced strong support of Dean Smith's contentions, stating that, in his view, a Budget Adjustment Fund whose main criterion for allocation of resources would be increased teaching workload would not reflect adequately the increased demand for entry into quota programs. The Dean of Nursing, A. Zelmer, reiterated some of Dr. Adams's concerns, remarking that it is difficult for quota faculties to demonstrate increased workload according to the policy under discussion, with the result that quota faculties would find access to additional funds difficult. Mr. Ekelund also gave support to the three quota faculty deans, suggesting that demand for quota programs be shown as a factor in the allocation of additional funds. Mr. Ekelund, however, pointed to his status as a first year student in the Faculty of Arts, which, quite possibly, prevented him from understanding such complex issues. Dean Adams then introduced a motion to table the Report under discussion with instructions to the Vice-President (Finance and Administration) to return to GFC with another report. Professor Leitch observed at this point that the matter under discussion was not *his* report but that of UPC of which he is a member.

Inasmuch as the motion to table was not debatable under normal rules of order, debate then centred around the latter part of Dean Adams's motion concerning instructions to be given to the Vice-President (Finance and Administration). At this point, R.G. Baldwin, Dean of Arts, spoke up against what he perceived as "phony logic" on the part of the earlier speakers, stating that, for him, Deans Smith and Adams's point "was not well taken." It was Dr. Baldwin's impression that the quota faculties did not have quotas for admission imposed upon them, but that they requested the quotas of their own accord. The Faculties of Arts and Science, according to Dean Baldwin, did not request quotas, even though their resources are hard pressed, preferring to wait upon the good offices of the provincial government. The essential question for Dean Baldwin was "why quotas?" Dean Baldwin stated that he could not endorse the proposed instructions to the Vice-President (Finance and Administration) if the comments from the deans of the professional faculties were to be incorporated within those instructions. After some further debate, including comments by Dean Adams on the differing workloads of varying faculties and by Dean Smith on the appropriateness of the UPC investigating University resource

priorities, the question was called and Dean Adams's motion to table was defeated.

Discussion of budget topics then came to an end relatively quickly.

Recommendations of the Task Force on Native Students

Council received the report of the Academic Development Committee on recommendations 1, 2, and 3 of the Senate Task Force Report on Native Students.

Recommendation 1 was that "the University of Alberta state its policy with regard to providing higher education for the native community." The Academic Development Committee approved a motion that it "proceed to develop a policy statement on the provision of higher education by the University to the native community." Council endorsed ADC's resolution.

Recommendation 2 of the Senate Task Force stated that "The University of Alberta consider a proposal from native people to establish an affiliated Indian and Metis college which would be academically integrated with the University and located on the University of Alberta campus. All existing and future programs and services for native people would be administered by the college."

The ADC considered that, with respect to this recommendation, "the University should not take further action until a proposal from the native community is received." GFC Executive recommended that this item be referred to the Native Studies Committee, and Council concurred.

The third recommendation of the Senate Task Force was that "a program of Native Studies be developed at the University of Alberta." The Academic Development Committee considered that GFC "should expect its Committee on Native Studies to develop program recommendations for consideration by ADC." Council agreed with this recommendation and referred it to the Native Studies Committee.

Native Studies Committee Expanded

Council agreed to a request from the Chairman of the GFC Committee on Native Studies that the committee's composition be enlarged to consist of the Advisor on Native Affairs as an ex officio member, ten members of the academic staff, two graduate students, two undergraduate students, and five members of the native community at large.

The original committee, struck in February 1976, was very much smaller: the Advisor on Native Affairs, two members of the academic staff, one graduate student, one undergraduate student, and one member of the native community.

Although the smaller committee had the power to co-opt, the Advisor on Native Affairs, Marilyn Buffalo MacDonald, had stressed at

the Executive Committee meeting of 4 December that the existing committee was too small to carry out the number of assignments it had to deal with. She suggested that there were two alternatives available: to enlarge the three-person Native Affairs Office so that the Committee could delegate task to it; or to enlarge the committee, so that sub-committees of voting members could be formed to carry out these tasks. She considered that the latter was the better alternative.

Associate Vice-President (Academic) Jean Lauber pointed out the importance of involving more representatives of the native community; she also noted that formal involvement as voting members of the committee would be more likely to gain the active support of such people than would merely co-opting them to help with particular tasks but not giving them the right to vote on matters of importance to them.

Although some members queried the efficiency of having a larger committee, it was agreed by Council that the committee should be enlarged as outlined by the Advisor on Native Affairs. The Nominating Committee was directed to make suggestions as to members, and it was noted that having at least one native student on the committee would be advisable.

Agricultural Engineering Program

Council approved the recommendation of the Faculties of Engineering and Agriculture and Forestry formally establishing a special program resulting in the degree of BSc (Agricultural Engineering). The program would be offered cooperatively by the two faculties, with a Joint Agricultural Engineering Curriculum Committee to review and recommend on the curriculum, promotion standards, and facilities.

In fact, such a program has existed for about ten years, so it will entail no additional funding. Minor revisions to it, including creation of the joint committee, will enable the program to become accredited. Students in the program will be registered in the Faculty of Agriculture and Forestry.

Engineering Faculty Selection Procedures

For the past five years, the Faculty of Engineering has been using special selection procedures that differ from the normal University procedures for choosing its deans and department chairmen. The Faculty brought its revised procedures, with proposed minor modifications, to General Faculties Council for approval.

In general University practice, the term of office for deans and department chairmen "will not exceed five years." For the Engineering Faculty the period of office is five years for dean and three years for

department chairman; at the end of that period, the office is considered vacant, unlike the procedure for the University as a whole, and a new selection procedure is automatically begun. The incumbent may apply for the position, but is not automatically returned to office.

The Faculty of Engineering, during the five-year trial period, modified the composition of the selection committees for both deans and department chairmen, deleting the dean of Graduate Studies from both and the Vice-President (Academic) from the committee for chairmen. Membership from the academic staff of the Faculty was increased to five, to permit representation from all five departments. Student representation was reduced by one, leaving one graduate and one undergraduate student as members. Dean Peter Adams explained that each member of a selection committee is expected to consult widely with his department and/or constituency. Although one member elected from outside the Faculty by GFC, one member of the professional society for engineers (APEGGA), and the Vice-President (Academic) remain as external members of the selection committee for deans, under the revised procedures, there would be no external representation on the selection committee for department chairmen.

Several members of Council expressed concern over the lack of external representation on both committees. While it was considered reasonable to support the Engineering Faculty by giving approval for it to continue the revised system it had developed and which had proven very satisfactory over the past five years, Council passed one amendment to the proposal, adding the Dean of Graduate Studies and Research to the selection committee for chairmen, on the grounds that there ought to be at least one external representative and that the input of the Dean of Graduate Studies was particularly valuable.

With that amendment, the special selection procedures for the Faculty of Engineering were approved.

New Member—Nominating Committee

Jim Carter, a graduate student in the Department of Industrial and Vocational Education, was elected to serve on the GFC Nominating Committee.

Quota Residence Guidelines

The Committee on Admissions and Transfer proposed certain changes to the residence guidelines for quota programs:

- (1) to define resident as a Canadian citizen or landed immigrant;
- (2) to change the "two year's continuous residence" phrase to "at least one year"; and
- (3) to remove reference "not counting time as a post-secondary student."

The revised guidelines, as amended by the Committee on Admissions and Transfer and by the GFC Executive, and as approved by Council, will appear in the *Calendar* as follows:

Amended statements of residence requirements for quota faculties:

A resident of Alberta is defined as a Canadian Citizen or Landed Immigrant who has been domiciled in the Province of Alberta, or Yukon, or Northwest Territories, for at least one year prior to the intended date of registration at the University of Alberta.

91.5.2 Criteria

(a) In quota programs, preference in admissions may be given by the Faculty to Canadian Citizens or Landed Immigrants who are

(i) Residents of Alberta, or

(ii) Residents of other provinces or Territories for which specific arrangements exist

(b) Residence in a (i) and (ii) above requires that the person be domiciled in the province for at least one continuous year immediately prior to the date of the intended registration.

(c) Visa students cannot establish residence as above; that is, a period as a full-time student in an Alberta post-secondary institution (under student visa) is considered to be a visiting period.

(d) the one year residence period shall not be considered broken where the Admissions Committee is satisfied that the applicant was temporarily out of the province

(i) on vacation

(ii) in short-term employment

(iii) as a full-time student.

(e) Individual exceptions or special interpretations may be made by an Admissions Committee where circumstances warrant it.

EUGENE BRODY SCHOLARSHIP

The Undergraduate Scholarship Committee of the University has announced the establishment of an award to honor the memory of the late Eugene Brody. The award is to be entitled "The Eugene Brody Scholarship," and it is to be awarded annually to an undergraduate student on the basis of academic standing, financial need, and participation in extra curricular activities at the University. The amount of the award will cover tuition and fees, and it will be paid from the Escheated Estates Fund of the University of Alberta.

Mr. Brody, throughout his life a victim of cerebral palsy, was a familiar figure on campus. He first enrolled in the Faculty of Arts in 1951, obtained his BA in 1966, continued studies as a special student in Arts, then re-enrolled in the Faculty of Science in 1968. He obtained his BSc in 1977. He was presented a special achievement award last year by the Students' Union.

In spite of his extreme handicap, Mr. Brody maintained an enthusiastic participation in student activities throughout his career at University. He was a regular reporter for *The Gateway*, the student newspaper, worked with student radio, and served a term as an undergraduate student representative on General Faculties Council. The scholarship was established in response to suggestions from both outside the University community and within the University.

PEOPLE

■ Kirsten Luckhurst, a 1978 graduate of the Faculty of Library Science, has received honorable mention in the annual student paper contest of the American Society for Information Science. Mrs. Luckhurst participated in the recent annual meeting of the Society in New York, where she was recognized for her paper entitled "Page charge policies in a sample of international biological journals and their implications for libraries."

■ At the recent Northwest Conference on Philosophy, held at the University of Victoria, F.P. Van De Pitte, Bernard Linsky, and John King-Farlow, all of the Department of Philosophy, gave papers; as did other philosophers from Oregon, Washington, British Columbia, and Alberta.

NOTICES

Notices must reach the Editor by 9 a.m. the Thursday prior to publication. Written notification is necessary. Notices should be sent to Folio Notices, 423 Athabasca Hall.

Conducting Campus Training Seminars

The Population Research Laboratory of the Department of Sociology is organizing a one-day training seminar on the topic "Conducting a Census." This seminar is designed to provide some helpful guidelines to those people who are actively involved in census taking, especially at the town and city levels. Those people at the supervisory level would increase their census administration efficiency through the adoption of standardized procedures.

There will be four major sessions: Preparation for the Census; Recruitment and Training of Enumerators; Preparation of Census Forms; and Enumeration and Quality Control.

The seminar is scheduled for Tuesday, 16 February, from 8:30 a.m. to 4:30 p.m. The total cost of the seminar, including lunch, is \$40 per person. For further information contact Ilze Hobin, telephone 432-4659.

Information about Georges Bugnet

Yolande Grisé is working on the literary works of Georges Bugnet, the author and horticulturist recently awarded an honorary degree by this University. Anyone having any information about Georges Bugnet should contact Dr. Grisé, 196 Coburg Street, Ottawa, Ontario, K1N 8H6.

Science Dining Club

The Science Dining Club will meet at 6 p.m. on Tuesday, 16 January, in the Saskatchewan Room of the Faculty Club. T. Ballin of the Department of Classics will speak on "The Interrelationship between Science and Technology in Ancient Greece." The talk will be followed by dinner at 7 p.m. Reservations should be made by 12 January with Mrs. P. Grant, Faculty of Science, telephone 432-4757.

THIS WEEK AND NEXT

Listings must reach the Editor by 9 a.m. on the Thursday prior to publication. Written notification is necessary. Listings should be sent to Folio Listings, 423 Athabasca Hall.

MUSIC

Latitude 53

7 January, Sunday 2:30 p.m. Edmonton Saxophone Quartet presents a feature ensemble. 10048 101A Avenue. For ticket information, telephone 423-3126.

Students' Union Theatre

11 January, Thursday 8 p.m. Yardbird Productions presents *Pied Pear in Concert*. Tickets available at the SU Box Office (HUB Mall), and Mike's.

THEATRE

Northern Light Theatre

To 7 January. *Overruled* by Bernard Shaw. Directed by C. Holte Davidson. For ticket information and show times, telephone 426-4292.

Citadel Theatre

To 7 January. *Flowers For Algernon*. Directed by Peter Coe and starring William Atherton. Shocter Theatre. For ticket information and show times contact the Citadel Box Office, telephone 425-1820.

Theatre 3

From 4 January. *Aleola*, the 1978 Clifford E. Lee Award winning play by Gaeten Charlebois. For ticket information and show times, telephone 426-6870.

FILMS

Citadel/National Film Theatre

5 January, Friday 7:30 p.m. *Oliver* (Great Britain, 1968).

7 January, Sunday 8 p.m. *When I Grow Up* (United States, 1951).

10 January, Wednesday. Showcase of Alberta produced films selected by the Alberta Motion Picture Industry Association. Free admission. Zeidler Hall. For ticket information contact the Citadel Box Office, telephone 425-1820.

Edmonton Film Society

8 January, Monday 8 p.m. *The Bad and the Beautiful* (1952). Tory Lecture Theatre. Tickets available at the SU Box Office (HUB Mall), Woodward stores, by mail and at the door.

Student Cinema

9 January, Tuesday 7 p.m. *The Winners*, a group of award winning documentaries, commercials, and dramas of the 1978 Alberta Film Awards. No admission charge. 9:30 p.m. *The Man Who Loved Women* (France, 1977).

10 January, Wednesday 7 and 9:30 p.m. *The Man Who Loved Women* (France, 1977).

12, 13, 14 January 7 and 9:30 p.m. *Grease* (United States, 1978). Students' Union Theatre. Tickets available at the SU Box Office (HUB Mall), and at the door.

EXHIBITIONS

University Art Gallery and Museum

To 12 January. The graphic work of Felix Vallotton.

Edmonton Art Gallery

To 12 January. An exhibition and sale of portraits in oil by the late W.L. Stevenson.

Provincial Museum

To 7 January. "People of the Andes," an exhibition of contemporary photographs by Paul Chesley.

Continuing. "The Other 19th Century," an exhibition consisting of 69 paintings and 17 sculptures in the "salon" style.

Continuing. "Picasso," an exhibition of paintings and prints by the artist.

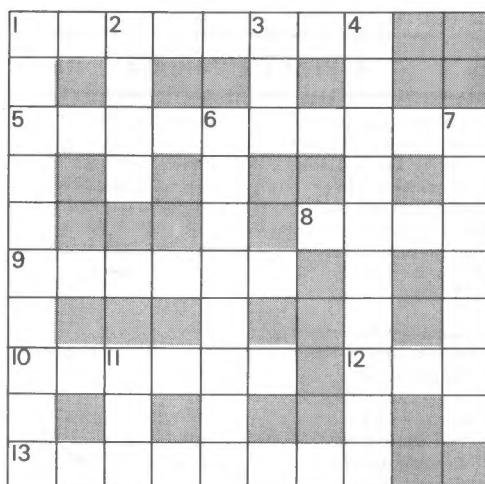
From 5 January. "Art of the Dene," an exhibition of native Indian works produced by the Dene people of the Northwest Territories.

LECTURES AND SEMINARS

Canadian Studies Lecture

10 January, Wednesday 8 p.m. "Who is hyphenated? Who is Canadian?" with speaker Keith McLeod of the University of Toronto. This is the fourth lecture in the series, "Getting to Know Ourselves: The Symons Report Revisited" sponsored by the Canadian Studies Committee of the Faculty of Arts. 2-115 Education North.

FOLIO CROSSWORD NO. 5



Across.

1. A perennial concern of the Registrar's Office, Timetabling Division. (8)
5. Their schemes "gang aft a-gley." (4,3,3)
8. Current precipitation? (4)
9. A ten year period say? Surely much longer for many professors. (6)
10. Love Eve without direction to develop gradually to a more highly organized form. (6)
12. Mountain girl near Troy? (3)
13. Sitting examinations in one institution may lead to gaining an advanced opposite at this institution. (8)

Polish Culture Society of Edmonton Lecture

10 January, Wednesday 7:30 p.m. "The Polish Literature at Home and Abroad," with speaker Edward Mozejko. 14-6 Tory Building.

Botany Lecture

10 January, Wednesday 4:30 p.m. "Effects of Salinity on Growth of *Distichlis Stricta*," with speaker Sylvia l'Hirondelle. M-149 Biological Sciences Building.

POINTS OF INTEREST

Campus Observatory

12 January, Friday. For information and tour reservations telephone 432-2325.

POSITIONS VACANT

Academic Director

An Academic Director is required by the Canadian Federation for the Humanities. The successful candidate will be the chief executive officer of the Canadian Federation for the Humanities reporting to the Board of Directors via the Chairman and the Executive Committee.

Duties: administration of the office and the

Down

1. The administrative curse! (10)
2. This man holds the key to Interdisciplinary Studies. (4)
3. Where to beard a lion or find a study of iniquity. (3)
4. Students and cows inwardly digesting ponderous matter? (10)
6. An indefinite article wandered about most quietly and gained acceptance. (6)
7. The present. (3,4)
11. A number of Latin eggs. (3)

Answer to Folio Crossword Number 4

1	C	A	2	U	N	3	T		4	M	A	5	S	S
	R			P			H			A			U	
6	O	B	S	T	E	T	R	I	C	S				
	S		I			M		K		C				
7	S	8	O	L	V	E			9	S	O	U	L	
10	W	H	O					11	F				B	
12	O	M	N	13	I	V	O	14	R	15	O	U	16	S
	R				N			17	L	A	P	S	E	
	D				C			I		U			E	
		18	S	C	H	L	O	S	S	E	R			

preparation of the budget; development and recommendation of policies and programs for the approval of the Executive and the Board; coordination of the Federation's work with that of other academic bodies and the learned societies; and representation of the Federation vis-à-vis the member societies, government departments and agencies, and the universities.

Qualifications: Academic training in the humanities; the ability to work easily in both English and French; familiarity with the Canadian academic milieu; an understanding of the needs of humanistic scholars; administrative experience; and demonstrated initiative and enterprise, especially in dealing with various levels of government.

Salary range will be commensurate with the successful candidate's ability and experience. The position becomes vacant on 1 December and applications will be received until the position is filled. The Committee expects to make an early decision. Applicants are requested to suggest three referees. Please send applications and résumés to: Chairman, Selection Committee, The Canadian Federation for the Humanities, 151 Slater Street, Suite 415, Ottawa, Ontario, K1P 5H3.

Government Publications Librarian

The University of Alberta Library invites applications for the position of general librarian in the Government Publications Unit. Responsibilities will include assisting the unit head in the management and organization of the collection, direct responsibility

for cataloguing and maintenance of records, and provision of reference and orientation services. A professional qualification in librarianship is required, together with experience in cataloguing and a general awareness of and interest in automated systems for government publications. A broad academic background in the social sciences is desirable. Salary range: \$14,333-\$24,060 per annum. Academic status, excellent fringe benefits, removal grant. Applicants should send curriculum vitae, transcripts of academic record, and the names of three references to the Librarian, University of Alberta, Edmonton, Alberta, T6G 2J8.

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, third floor, SUB, telephone 432-5201. Please do not contact the department directly. Positions available as of 21 December.

Clerk (\$695-\$748)—Office of the Comptroller, Payroll
 Duplicating Operator I (\$695-\$803)—Law
 Clerk Typist II (\$348-\$402, part-time)—Educational Research Services
 Clerk Typist II (\$695-\$803, trust)—Institute of Law Research and Reform
 Clerk Typist II (\$695-\$803)—Linguistics; Provincial Laboratory; Office of the Comptroller (two positions)
 Clerk Steno II (\$695-\$830)—Mechanical Engineering; Dean of Education
 Dental Assistant (\$721-\$863)—Community Dentistry
 Clerk Typist III (\$748-\$895)—Plant Science; English
 Clerk Steno III (\$772-\$929)—Educational Psychology; Secretariat
 Clerk Steno III (\$772-\$929, trust)—Community Medicine
 Senior Financial Records Clerk (\$772-\$929)—Drama
 Programmable Typewriter Operator II (\$803-\$969)—Personnel Services and Staff Relations
 Admission Records Trainee (\$803-\$969)—Office of the Registrar
 Medical Steno (\$830-\$1,009)—Medicine; Surgery
 Data Entry Operator II (\$830-\$1,009)—Sociology
 Accounts Clerk (\$830-\$1,009)—Office of the Comptroller
 Secretary (\$863-\$1,053)—Canadian Institute of Ukrainian Studies; Electrical Engineering
 Secretary (\$863-\$1,053, trust)—Riel Project
 Departmental Secretary (\$969-\$1,192)—Psychiatry
 Computer Assistant I (\$695-\$830)—Computing Services
 Laboratory Assistant II (Chemistry) (\$721-\$863)—Microbiology
 Technical Assistant (\$830-\$1,009)—Pharmacology
 Technician I (\$895-\$1,096, trust)—Medicine
 Chemical Technician II (\$1,009-\$1,243)—Animal Science (two positions)
 Biochemistry Technologist I (\$1,009-\$1,243, trust)—Pharmacology
 Technologist I (Pharmacology) (\$1,009-\$1,243, trust)—Pharmacology
 Draftsman II/III (\$1,053-\$1,476)—Purchasing, Interior Design
 Programmer/Analyst II (\$1,192-\$1,476)—Computing Services
 Programmer/Analyst II/III (\$1,192-\$1,759)—Computing Services
 Machinist Technician III (\$1,298-\$1,611)—Physics
 Technologist IV (Biochemistry) (\$1,476-\$1,838, trust)—Medicine

The following is a list of currently available positions in the University of Alberta Libraries. The bulletin board in the Cameron Library, Room 512, should be consulted for further information as to availability and position requirements.

Library Clerk III (\$748-\$895)—Cataloguing
 Library Assistant I (\$803-\$969)—Acquisitions; Bibliography; Education; Selections

Secretary (\$863-\$969)—Cataloguing
 Assistant to the Buyer (\$863-\$1,053)—Administration

ADVERTISEMENTS

All advertisements must be received by 4:30 p.m. on the Thursday prior to publication. The cost is 15 cents per word for the first week and 5 cents per word for subsequent weeks ordered before the next deadline. Advertisements must be paid for in advance, and are accepted at the discretion of the Editor. We regret that no advertisements can be taken over the telephone. For order forms or further information, telephone 432-2325.

Accommodations available

For rent—three bedroom bungalow, partly furnished. University area. \$500 plus utilities. Available 1 January. 487-3053.

For sale—Hearthstone. Large unit fully finished, two open fireplaces. Preferred location. Call Liz Crockford 434-0555, Dianna Larson 481-0936. Spencer Real Estate.

For sale—Windsor Park. By owner. Approximately 1,700 sq. ft. bungalow. Finished basement. Large lot. Clear title. \$168,500 firm. For appointment, call Mrs. Gerald 433-8956. No agents please.

For sale—By owner. Blue Quill, 1,756 sq. ft., Perry split, garage, landscaped. \$99,900. Phone 436-3617, 434-3696.

For sale—Make an offer. Large 63' x 14' trailer can be moved to acreage or left on serviced lot in city. Stove, fridge, fully carpeted. Resi Richter. Weber Bros. 455-4135, 483-9432.

For sale—Luxury hi-rise. River valley view. Brick fireplace in living room, two bedrooms, two bathrooms, underground parking. Resi Richter. Weber Bros. 455-4135, 483-9432.

For sale—\$84,900 Malmo. Two storey, four bedrooms upstairs, formal dining room, finished rumpus room, attractively landscaped lot. Call Liz Crockford 434-0555 res. 436-5250 Spencer Real Estate.

For sale—Immediate possession. West end, five bedrooms, three bathrooms, family room, two fireplaces, sauna, sundeck, double garage. Resi Richter. Weber Bros. 455-4135, 483-9432.

For rent—Large comfortable furnished suite. Very close to University for one or two persons. Non-smokers only. Graduate students preferred. Available immediately. \$200 monthly including utilities. 435-0866.

For sale—Executive, open beam. Front split. Westbrook Drive. 3,000 sq. ft. home. Beautiful 100' x 190' lot overlooking Derrick Golf Course. Spacious rooms, planned for entertaining. Two fieldstone fireplaces with gas starters, huge kitchen, three bedrooms, double garage. For viewing call Faye Lund. Block Bros. 436-4240, 436-5355.

Sale by owner: Nice three bedroom condominium in Millwoods. Carport and other features. Centrally located. Reasonably priced. For full written information, write to Box 184, University Post Office, Edmonton.

Accommodations wanted

Artistic director Citadel Theatre has large four bedroom house near London, England, to exchange for similar house, Edmonton. Lengthy period from June. Call 426-4811.

Professor with wife and son would like to rent a house near University starting Spring 1979, at reasonable rate in return for good caretaking. Phone 432-2390, 458-8203.

Wanted to rent—One bedroom or larger, apartment or house near the University. 1 January to 1 May 1979. Call 462-3102 or 432-5671.

Automobiles and accessories

For sale—Vintage VW Beetle. Completely overhauled. Excellent body and mechanical condition. 452-3958. Olds 88—Four door, motor replaced, rebuilt transmission. \$595. 478-4241.

Goods and services

Experienced typist. Variety of type styles, symbols. Quality work. 435-4407; 435-5006.

Theses, manuscripts, and publications expertly typed at a reasonable cost, using IBM Selectric correcting typewriters. Raffin and Hart Office Services.

9203N 112 Street. HUB Mall. 433-7727. Edmonton YMCA Chito-Ryu Karate Club. Phone 455-2139.

Experienced coders, familiar with extracting data from flow charts and questionnaires. Pegi Gunn-Graham 467-3382, Hilary Hellum 467-1402.

\$Sell Yourself\$ with a professionally prepared résumé. Contact Valerie Harrison—Western Personnel Registry 10444 82 Avenue 2nd Floor. Phone 432-7565.

Will do top quality typing. Phone 455-6398.

Aspen Languages—New classes commencing January. Intermediate and advanced French. Italian for beginners. French series—Le Tour De France: Conversation with slides. 435-4467.

Typing of theses, term papers, etc., in my home. Pick up and deliver. 454-5977.

Bechstein concert grand piano, 7½ feet completely rebuilt and refinished. \$12,000 or best offer. Phone 434-1334.

Wanted old portable TVs 478-4241.

Interested having your area snow cleaned? Call 439-3531.

Baby goods for sale—Like new. Call Elsie 432-5955 bus. 454-5473 res.

For sale: Teak table, 4 chairs, Princip oak bookcase, single bed, sofa, vacuum cleaner, ironing board. Like new, 3-5 months old, must sell, best offer. Phone 439-5243 after 5 p.m., January.

Keep fit Yoga for beginners: Starts 17 January. Classes Wednesday evenings at University. Cost-sharing basis. Registration 6:30 p.m. January 10, and 5 p.m. 17 January, Room 9, 14th Floor, Tory Building. Limited enrollment.

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